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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,228

03/31/2004

Charles E. Benedict

14630

3874

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7590

05/13/2008

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EXAMINER

ADAMS, GREGORY W

ART UNIT

PAPER NUMBER

3652

MAIL DATE

DELIVERY MODE

05/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/813,228

Applicant(s)

BENEDICT ET AL.

Examiner

GREGORY W. ADAMS

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-13 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-9,12 and 18-25 is/are rejected.
- 7) ☒ Claim(s) 3,5,10,11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

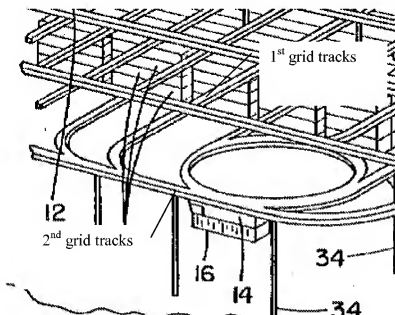
Claims 1, 6-7, 9, 12, 18 & 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. (US 4,973,219) (previously cited) and further in view of Yamashita (JP 07172317 A) (previously cited).

With respect to claims 1, 6 & 21-22, Brickner et al. disclose-

- vertical cells structure 12, 34, 36
- tier levels, e.g. stacked containers 16
- grid track system 12 above vertical cells

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- grid first tracks intersecting with second grid tracks (see FIG. 1 reproduced below)
- transfer unit 14 suspended from a grid track system
- a plurality of carriage means (indicated generally as 44) suspending a transfer unit
- transfer unit drive means 54
- spreader beam 40
- hoist means 55
- guide member 42
- means (C18/L30-45) for providing electrical power to a drive means.

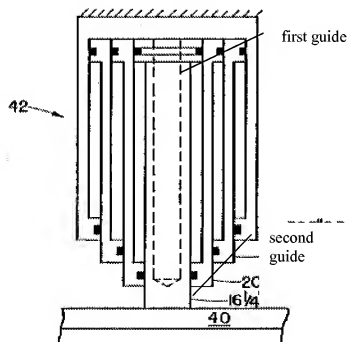


Brickner does not disclose first pairs of parallel tracks and second pairs of parallel tracks in an X-Y pattern. Yamashita discloses first pairs of parallel tracks 2, 3 and second pairs of parallel tracks 4, 5 in an X-Y pattern "for use in building warehouses" for

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"improved efficiency in lifting and moving loads". Yamashita Abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner to include first pairs of parallel tracks and second pairs of parallel tracks in an X-Y pattern, as per the teachings of Yamashita, to improve efficiency in warehouse good transfer.

With respect to claims 7 & 18, Brickner et al. disclose a first guide member mounted to a transfer unit and a second guide member mounted to a spreader beam 40 a guide member comprising arms. See FIG. 9 reproduced below.



With respect to claim 9, Brickner et al. disclose two drive motors 54.

With respect to claim 12, Brickner et al. disclose inductive power raceway.

(C18/L30-40).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Yamashita and further in view of Shiota (US 6,161,887) (previously cited).

With respect to claim 8, Brickner et al. does not disclose two hoist assemblies including a pair of winding drums, cables and hoist motor. Shiota discloses two hoist assemblies, each comprising a pair of winding drums 11, cables 10 connected to a spreader frame 8, and hoist motor 9. Shiota improves on the actuator-only system of lifting shipping containers because the solution of the prior art did nothing to prevent the load from swinging when transported horizontally. C1/L30-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner et al. to include two hoist assemblies including winding drums, cables and hoist motor, as per the teachings of Shiota, for stable container transfer while hoisted.

Claims 19 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Yamashita and further in view of Lucking (US 5,915,906) (previously cited).

With respect to claims 19 & 23, Brickner et al. discloses two walls and does disclose guide walls that are flared outwardly at a lower portion. Lucking discloses guide arms 16 having two guide walls and flared outwardly at a lower portion thereof to align a grab object eliminating swing or sway. C1/L34. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner et al. to include guide arms having two guide walls flared

outwardly at a lower portion thereof, as per the teachings of Lucking, to eliminate swing or sway.

Claim 20 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Yamashita and Lucking and further in view of Shiota.

With respect to claim 20, Brickner et al. does not disclose two hoist assemblies including a pair of winding drums, cables and hoist motor. Shiota discloses two hoist assemblies, each comprising a pair of winding drums 11, cables 10 connected to a spreader frame 8, and hoist motor 9. Shiota improves on the actuator-only system of lifting shipping containers because the solution of the prior art did nothing to prevent the load from swinging when transported horizontally. C1/L30-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner et al. to include two hoist assemblies including winding drums, cables and hoist motor, as per the teachings of Shiota, for stable container transfer while hoisted.

Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brickner et al. in view of Nordstrom (US 4,043,285) (previously cited) and further in view of Yamashita.

With respect to claims 24-25, Brickner et al. does not disclose cells mounted with a hold of a vessel and deck plates. Nordstrom discloses a structure 46, 50, 52 defining a plurality of vertical cells in a ships hold (FIG. 3) each cell having a plurality of tier levels and being of a size to cooperatively receive a storage and shipping container in each tier level and deck plates 24. Nordstrom discloses a plurality of transfer units

mounted to a grid, columns and tiers (indicated generally as 12, 34, 52 as is common in dense storage of containers because containers are generally accepted as capable of the stresses inherent in stacking which are more accessible to on-board gantry cranes 82 which improves a ships center of gravity. C1/L4-9. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Toda to include a plurality of transfer units, columns and tiers, as per the teachings of Nordstrom, to improve the center of gravity of a loaded ship.

Yamashita discloses first pairs of parallel tracks 2, 3 and second pairs of parallel tracks 4, 5 in an X-Y pattern "for use in building warehouses" for "improved efficiency in lifting and moving loads". Yamashita Abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Brickner to include first pairs of parallel tracks and second pairs of parallel tracks in an X-Y pattern, as per the teachings of Yamashita, to improve efficiency in warehouse good transfer.

Allowable Subject Matter

Claims 3, 5, 10-11 & 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed Feb. 29, 2008 have been fully considered but they are not persuasive. Claim 1 merely claims an overhead lifting apparatus that moves among and between a plurality of storage cells. Brickner clearly discloses an X

movement and a Y movement over a plurality of storage cells adjacent dockside loading cranes. And X-Y grids of parallel tracks is also clearly disclosed in Yamashita.

Moreover, merely installing an X-Y grid in a ship is not novel. The addition of a ship does not affect the apparatus inasmuch as the apparatus has no connection with any shipping function, i.e. boat propulsion, flotation etc. In other words, a skilled artisan will understand an overhead X-Y track system will function identically regardless of whether its in a boat or warehouse. As indicated above, Applicants novelty appears in claims 3, 5, 10, 11 & 13.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY W. ADAMS whose telephone number is (571)272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodríguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Saúl J. Rodríguez/
Supervisory Patent Examiner, Art
Unit 3652

/G. W. A./
Examiner, Art Unit 3652
4/14/2008